

Comment in the (Matter of Amendment of Part 97 of the Commission's ) Rules Governing the Amateur Radio Service ) Concerning Permitted Emissions and Operating Privileges for Technician Class Licensees

To: The Chief, Wireless Telecommunications Bureau Federal Communications Commission

ARRL Proposal for Rule Making

Once again the ARRL has made a proposal they expect will spur the growth of Amateur radio, attract newcomers, younger people and promote greater interest in sciences. Their proposal appears to be based on faulty reasoning and ARRL's poor understanding of any more effective means of attracting newcomers into the amateur service.

The ARRL itself has made and continues to make faulty decisions that have contributed to significantly less use of the high frequency amateur bands from 1.8 to 30 MHz.

**Promotion of Non H.F. Communications:** For over 20 years the ARRL has vigorously promoted to all classes of amateur licensees the use of various internet protocols such as Echolink, IRLP and DMR in conjunction with amateur communications. They have published books on how to use Echolink, and numerous articles in their national publication QST have addressed the use of low powered, inexpensive VHF & UHF walkie talkies that allow connection through nearby repeater stations to the internet for the purpose of communicating by voice both nationally and internationally. The echolink website claims over 200,000 registered users from 163 different countries with an average of over 6,000 users "live" any time of the day. These communications are quite reliable globally 24 hours a day. In fact, some of these internet linking systems allow global communications without even using a radio designed for Amateur use. One can simply use a laptop or cell phone to access these systems. The close to two decades of encouraging Technician

Class and higher class licensees to use these internet protocols to enable worldwide communications has tended to take away incentives to use the high frequency amateur bands for long distance communications. It has also taken away most incentives to upgrade from Technician to a higher class of license as promoted by ARRL's current proposal.

The ARRL's promotions of an easy path to worldwide communications via the internet has been and continues to be a disincentive to the use of the H.F. amateur bands and has eliminated a principal reason for Technician licensees to seek a higher grade of license.

We have become a nation of easiest is best thinkers. Using the high frequency bands for voice communication requires the use of more expensive radio equipment and requires significantly larger antenna systems. Worldwide communications in the H.F. region is greatly dependent on atmospheric conditions. Even with the finest of systems costing hundreds of thousands of dollars, long range communications that are consistently reliable to every part of the globe has eluded amateurs ever since the first radios were placed into use. The continuation of highly variable atmospheric conditions will always affect the ability or inability to communicate over long distances.

There is very little cause for excitement in young people for 100% reliable communications as it is done every day of the year via their personal cell phones and though the internet via services such as SKYPE, VIBER, FACETIME etc. Worldwide communications by anyone is now considered a standard everyday occurrence and is no longer anything to get stimulated about.

**No Interest in License Upgrading:** Why are the majority of over half of all amateur licensees, the

Technician Class, not putting in the effort to pass a test to achieve a General or Extra Class of license? They are simply not interested enough to make that small effort to upgrade. If one asks any licensee that recently did upgrade to the General or Extra Class license why they studied the educational material in order to attain their higher class of license, they will all state it was to get more amateur privileges. The current ARRL proposal will merely give a well used and crowded portion of the amateur frequencies to over 380,000 Technicians who were not interested enough to make the effort to upgrade for the sake of acquiring additional operating frequencies. The current proposal takes away the incentive to study for the purpose of increasing technical self-training in radio sciences while removing incentives to pursue higher license class achievement. Allowing people to access licensed activities and benefits without any effort would be a serious mistake in judgement. It falls under the 'Getting the prize without earning it' syndrome sadly becoming part of our national fabric. We've been lowering University entry testing standards for people in certain groups that usually have lower scores. Has this resulted in graduates with a higher level of learning and abilities in their field? Common sense says no. We have started awarding identical trophies to every participant in a sporting competition so that losers will not feel bad. Will we soon be awarding a college degree in advance, thinking this will attract more people to attend college? Giving the prize to heretofore uninterested parties in order to attract participants does not necessarily make them more interested in that field of endeavor.

**Misplaced Priorities:** The ARRL has possibly not had their priorities in the right places for many years. Their own promotions of internet communications has seriously removed incentives for Technician and General licensees to upgrade to a higher class of license in order to communicate globally and has seriously reduced the amount of H.F. operations by many higher class license holders who have already adapted to the use of internet communications.

**Amateur Radio has an Identity Crisis:** The ARRL fails to point out the mere fact that very few people up to the age of 40 have no idea that amateur radio exists. The younger a person is the less likely they know about amateur radio. For many years when telling people of all ages that I was an amateur radio operator their response has been, “What is that?” Or if they are over 60 years of age, possibly they have heard of amateur radio but inevitably their response is “Oh, I thought nobody does that anymore.” If people do not know amateur radio exists why would they even consider getting a license for it? Changing F.C.C. regulations will not attract young people to amateur radio. The key is educating the public that amateur radio indeed exists. Getting sparse mention in news articles related to disaster communications by amateurs is simply not sufficiently educating the general public about amateur radio, let alone get anyone interested in getting licensed in the service. If indeed youngsters do discover amateur radio, would they seek to get an amateur license to possibly speak long distance using a medium that is sporadic at best when they can already and very reliably communicate all over the world with their cell phone, tablet or lap-top? Common sense says no.

**Misuse of Frequencies:** There is currently no official monitoring of amateur frequencies to determine if licensees are operating within their allocated licensed frequency. How often has the FCC revoked an amateur’s license or warned a licensee because of their operating in the amateur bands outside of their permitted frequency range? Allowing over 380,000 Technician Class licensees access to additional and already crowded voice sub-bands in the H.F. range will further exacerbate uncontrolled use of amateur frequencies in these sub-bands. The ARRL proposal does not suggest or demonstrate any means of enforcement or assurance of adherence to the strict use of

frequencies allocated to the class of licensee. The so called “self policing” of the amateur bands is ineffective and is not sufficient to control already rampant illegal frequency operations.

**Use of transmitter power levels in excess of F.C.C. Regulations:** For many years I have not seen active enforcement by the F.C.C., ARRL or any other agency with regard to amateurs using power output levels in excess of that permitted by F.C.C. regulations. It is well known in amateur circles that there is currently illegal use of transmitter output power in excess of FCC regulations by many licensees. The ARRL proposal states that Technicians will restrict their power output level to a maximum of 200 watts. What assurances are there that excessive power levels will not be used by these Technician licensees? The ARRL proposal does not suggest or demonstrate any means of enforcement or assurance in adherence to authorized power levels. Again, the claims of “Self Policing” has historically proven to be ineffective at controlling power output levels in excess of F.C.C. regulations.

**ARRL promotes Non Socializing Activities:**

The ARRL has promoted ‘contesting’ for decades. A 2019 contest calendar lists over 75 different contests for just the month of March. While some take place during a weekday, many contests run for 48 hours and are on weekends when most younger people are home from school and can possibly listen with a short wave receiver to the amateur bands. When young people or others that could be potential amateurs encounter these contest transmissions they hear only a series of letter signs and numbers. What sounds like gibberish to the uninformed is certainly not what will attract newcomers into the amateur service. There is no socializing or exchange of any scientific information. Claiming that this type of operation does attract newcomers is highly questionable. This is tantamount to attending a party of strangers where everyone is yelling out a bunch of letters

and numbers without ever taking the time to introduce themselves, socialize or exchange valuable information. It certainly does not sound like the type of party one would attend a second time. On numerous occasions I have personally been asked by both adults and youngsters to demonstrate my amateur equipment. When doing so during a contest, after a few minutes of listening, their eyes quickly glaze over and whatever interest they originally had rapidly dissipates. The frequencies are so crowded with ‘contester’ transmissions, most amateurs that do prefer socializing and exchanging technical and scientific information avoid using their radios during these contest periods. I personally have heard amateurs stating they no longer use their equipment because the bands are “tied up” with contests. They now prefer using either VOIP (Voice Over Internet Protocol) such as SKYPE, Viber, FACE TIME, etc or they simply use their cell phones to keep in touch with their friends. Many of these inactive amateurs have given up their membership in ARRL as a result of the ARRL’s continued promotion of contests and the filling of pages with the results of these contests in their national publication, QST.

**Failure to Fully Recognize the 10 Meter Amateur Band:** While the current proposal does have a limited reference to the 10 meter band it does not sufficiently describe the long range voice communications available to Technician Class licensees. The proposal does address the addition of RTTY and Digital modes for Technicians in the 10 meter band. While it is true that sunspot and atmospheric conditions for the past few years have not been very favorable to worldwide communications, there are currently times that allow sporadic-E voice, RTTY and Digital communications on the 10 meter band. I personally have had voice communications with numerous domestic amateur stations out to 1,500 miles using a simple vertical antenna. I have recently seen amateurs using FT-8 and similar modes on the 10 meter band to establish contacts

with stations outside of the USA with ranges from 3,000 to 4,000 miles. The 10 meter band would be a good choice to apply RTTY and Digital privileges for Technician class licensees. It is an excellent band for experimenting and does not require the much larger antennas needed for the lower frequency bands. I do feel the F.C.C. should add RTTY and Digital modes for Technicians restricting this privilege to only the 10 meter band. FT-8 and similar modes will allow them to experience long range global communications while experiencing the vagaries of atmospheric conditions and their effect on radio communications in the 28 Megahertz range. The current atmospheric conditions should start to improve as the typical 11 year sunspot cycle starts to allow more favorable long range communications on the 10 meter band. In fact, when atmospherics create “openings” in the 10 meter band, both voice and digital communications are relatively quite easy using small antennas of approximately 8 feet in length along with low powered transceivers. Under what amateurs call “good” conditions, worldwide all mode communications on this band are strikingly good and very easy to achieve. The current proposal severely minimizes the usefulness of the 10 meter band and the 200 kilohertz range of frequencies already allocated for voice use by Technician Class licensees.

**Technician Class Socializing With Higher Class Licensees:** The ARRL proposal suggests that it will allow Technician Class operators to speak to higher class licensees. They fail to recognize this is already possible and does take place virtually every day on the 10 meter amateur band. Using one of many common commercially available 10 meter vertical antennas and a readily available 100 watt output single sideband transceiver, most Technician licensees are currently within range of other amateurs operating voice on this band. The use of 10 meters is certainly not restricted to Technician Class operators. Many of the operators actively using this band hold

Technician, General and Extra Class amateur licenses. And they are all communicating with each other. As many of these communications are via ‘ground wave’ rather than ‘sky wave’, amateurs are communicating reliably with others that are within their stations ground wave capabilities. This allows socializing and the important exchanging of scientific information. With ‘ground wave’ communications, operators are usually within driving distances from one another. Many operators that meet via the 10 meter band, meet in person. This allows face-to-face socializing and importantly contributes to amateurs helping each other with electronic trouble shooting, antenna installations and exchange of scientific information. There is a high degree of mentoring via the 10 meter band yet ARRL seems to dismiss this band and does not recognize it’s importance to licensees, especially Technician Class license holders..

**Mentoring:** The ARRL proposal claims they will be instituting a program of mentoring newcomers. They have been talking about mentoring for years and the result is still a diminished use of the H.F. frequencies allocated to the amateur service and a large non-renewal of licenses by Technician licensees. Why have their mentoring efforts failed at getting Technician Class license holders to upgrade or even renew their licenses before expiration?

**“Entry Level” license:** The ARRL refers to the Technician license as the “Entry Level” to the amateur service. Is it also the entry level for radio communications? If we go back in the history of radio we find a small group of tinkerers, experimenters and generally curious people. When these first ingenious few created means to transmit and receive there was no control by any licensing authorities. Yet radio communications flourished and expanded. People exchanged notes. Books were written. Circuits were built and copied by others wishing to take part in this new adventure. More became interested in radio as news media reported it’s effectiveness. Not everyone was as



creative as these early pioneers but they studied the texts, exchanged ideas and learned by doing while expanding the new art and sciences of radio communications. Virtually all significant advances in radio technology including broadcasting have been developed by individual experimenters, many of which are called 'Ham Radio Operators'.

Eventually governmental controls of the airways were needed. The F.C.C. is currently the controlling agency for all types of broadcasting including the amateur service. There are licensing standards, testing requirements and regulations to provide for the control of the frequency spectrum.

In the late 1950's the Citizen Radio Service was created by the FCC. A section in the 27 Megahertz frequency spectrum was allocated for this new service. A simple license was required. Hundreds of thousands of Americans purchased small 5 watt transceivers to use for business, personal family communications and just plain socializing. It became very popular in the 1970's especially in the era of gasoline shortages when truckers used their 'CB' radios to advise each other of stations that had fuel.

Many CBers wanted more access to long range communications along with a wider use of frequency bands. They studied the appropriate materials in order to pass tests to attain an amateur license. The current amateur bands are full of those that are ex CBers. Possibly CB can also be called one of the Entry Levels to the amateur license. It is important here to recognize that none of these CBers were given amateur frequencies to use to attract them into the amateur service. They worked, studied and passed the required examinations to obtain their amateur licenses with many eventually attaining the highest level of amateur license, the Extra Class.

**Losing the "SPARK":** Since the inception of radio communications, the "Spark" that has

attracted many people into amateur radio has been the mystique of being able to wirelessly communicate point-to-point around the world with a small radio and antenna while all along depending on what is happening in the atmosphere high above our planet.

It seems the ARRL has lost the importance of this spark when it comes to their promotions of the amateur service. Instead they have historically and inappropriately relied on “Giving Away the Prize” thinking the Prize itself will attract newcomers, young people, create a desire for learning new sciences, increase retention for entry-level licensees and create incentives to pursue higher class license achievement. History has proven their proposals wrong and ineffective on numerous occasions with some causing a negative impact on the well being of the future of the amateur service. I expect their latest proposal, if fully adopted without change by the F.C.C., will follow along these lines.

**In Summary:** I am opposed to all aspects of the ARRL proposal with one exception. Although I strongly disagree with the ARRL claims that their proposal will accomplish any of the benefits they have promoted, I do favor the adding of RTTY and Digital modes **ONLY to the 10 meter amateur band**. This change will **sufficiently and further** expose Technician Class licensees to additional longer range communications using these alternative modes of transmissions.